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NASA

AMES RESEARCH CENTER

SYSTEM ENGINEERING REPORT

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Alternate #_____

SUBJECT

FOCAL PLANE INSTRUMENT CABLING CONSIDERATIONS FOR SOFIA

PROJECT SOFIA

DISTRIBUTION _____

(NASA-TM-110730) FOCAL PLANE
INSTRUMENT CABLING CONSIDERATIONS
FOR SOFIA (NASA. Ames Research
Center) 2 p

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Unclas

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Focal Plane Instrument Cabling Considerations for SOFIA E. F. Erickson 4/27/89

The wide variety of focal plane instruments which will be used on SOFIA suggests that cables should be provided by each experimenter, rather than by the observatory. On the other hand, a few general purpose cables between patch panels located in the vicinity of the telescope and the experimenters' rack would probably be used by a number of observers, and would reduce installation time. Certainly support points above and aft of the instrument mounting flange, and cable trays to a location near the experimenters' rack should be permanently installed for users supplying their own cables.

The following is a suggested list for permanently installed cables between the patch panels:

- A. Experimenter-unique cables
 - 1. 24 RG58C/U Coax with BNC male jacks.
- B. Experiiment/facility interface connections
 - 2. 4 DB 25 connectors with 18 gauge hookup wire.
 - 4 DMACS I/O Interface jacks.
 - 4. Video distribution Coax outlets for telescope cameras, TIPS, TDADS, and DMACS displays.
 - 5. Chopper reference